ART. III. Case of Twins, simulating Superfectation, with Remarks. By Isaac G. Porter, M. D., of New London, Conn.

The existence of superfectation in the human species has long been a contested question; and the cases, claiming to be such, which occasionally appear, indicate that some, at least, of the profession, are still unprepared for its rejection. Many, however, of these reputed instances of its occurrence, are self-contradictory, while others, which at first view seem to favour the doctrine, may, if thoroughly investigated, prove to be no more entitled to the character, than the case about to be detailed. Most respectable physiologists have maintained, that its existence, other than as it may be strictly coeval in time, or nearly so, is improbable, if not impossible, while others, perhaps no less eminent, relying more upon what is regarded as the evidence of experience, than the deductions of a physiological theory, have given to the doctrine the sanction of their names.

That the case, which is presently to appear, may be the better understood, the writer would refer to one, published by him in a former Number of this Journal, exhibiting the fact, that a fætus may cease to live at the fifth month, and yet remain until full term, undecomposed, in the uterus. Another example, illustrating the same point, has since occurred to the respected editor of this Journal, (Aug., 1837, p. 535.) On referring to the Number for Feb., 1836, will be found, the following concise history of the case, which occurred to the writer.

"July, 1835, Mrs. — proceeded to the fourth or fifth month of pregnancy, without experiencing any unusual circumstance. The signs of quickening, however, though anxiously expected, did not appear. With this exception, and the occurrence of severe dropsical symptoms, the other signs of pregnancy continued, undiminished, for another month. At this period, the size of the abdomen began gradually to diminish, and at the eighth and ninth months it was scarcely more prominent than ordinary. Still a foreign body could, at times, be perceived through the parietes of the abdomen and uterus. The general health remained perfectly good. At the close of the ordinary period of utcro-gestation, without pain, or any uncommon efforts, the distended membranes were found slightly protruding from the vagina-pains, resembling cramp, succeeded, and subsequently, alarming hæmorrhage. Enveloped in the unbroken membranes, was a fœtus apparently of five months, entirely free from any mark of decomposition. The placenta, which followed spontaneously, was in a morbid condition, being larger than ordinary and resembling in form and consistence, a sarcomatous tumour. At the usual period after delivery, milk was secreted in large quantity, and recovery was rapid and complete."

The following case, interesting in itself, and from its bearings on the sub-

ject of superfectation, has been kindly furnished for publication, by Dr. Perkins, a gentleman in extensive obstetrical practice.

New London, May 16th, 1840.

DEAR SIR:—Agreeably to your request, I herewith transmit a history of that interesting case, the origin of the peculiarities of which, has caused among us so much speculation.

On the morning of April 18th, 1840, Mrs. --- was safely delivered of a stout male child, at the usual period of gestation, well, and weighing about nine pounds. The placenta was thrown off, by a slight uterine effort, in ten or fifteen minutes, perfectly entire, without any hæmorrhage. I left her in about half an hour and she expressed herself as more comfortable than after either of her previous labours. Passing the house three hours afterwards, I called to see her-found that she had been removed to her place in bed-every appearance natural-her strength good, yet complaining of what I considered after-pains, which were rather severe, but not unusual. Gave her an anodyne. Upon calling next morning, the nurse informed me that during the night a mass had come from the patient, which she had laid aside for me to examine. I found it to be a fætus, enveloped in the membranes, about four or five months old, entirely undecomposed, of a natural colour, healthy, and in form perfect for a fœtus of that age, except the head, which was compressed. The funis was of the usual size and appearance, attached to a mass of hard, compact, membraneous substance, white and as firm as the uterus, which it resembled in structure, appearance and shape; its length five inches and breadth four. On opening it it was found hollow, containing recent coagula. The section through each wall was full a quarter of an inch, but becoming thinner to the mouth of it, where it terminated in thin membranes, by which it was probably attached to the uterus. 1 should call this superfectation, if it be possible for that form of conception to exist, which it must either have been, or it must have been twins from the beginning, and continued so for the first four months, and then one of the bodies must have lost its character, as a growing feetus, and become like a substance of unnatural growth, yet attached to what had answered the purpose of a placenta—the uterus at the same time containing a natural, healthy child. Yours, with respect,

N. S. PERKINS.

To Dr. 1. G. Porter.

Here, then, we have an instance proving, with the exception of the morbid placenta, as incontestably as it is possible for a single case, the existence of superfectation. A feetus of full term, and another of four months are delivered nearly at the same time, the latter "healthy in form, of a natural colour, and perfect for a feetus of that age." But we need no other proof

than the condition of what was once the placenta, to show that life could not have been supported by it. It was exhibited to the physicians of this place, and it is believed, that all are of the opinion, it could not, at any recent period, have performed the appropriate functions of a placenta. Both this, and the fœtus, exhibited marks of compression, such as would naturally be exerted by the parietes of the uterus, acting on dead matter.

How frequently, in alleged instances of superfectation, has this condition of 'the placenta been overlooked—the attention being absorbed by the principal phenomenon?

Smellie, in his "Cases on Midwifery," vol. ii, p. 85, (1754,) under the head of Superfectation, has the following case, communicated to him, in a letter, by Mr. Campbell. "A woman in this neighbourhood, was delivered of her first child, and the delivery followed by severe after pains, and five days afterwards, she miscarried of a feetus, which could be no more than four or five months in growth. There was no sign of putrefaction about it, though it was still-born. There was no hair nor other sign of its being longer conceived. How to reconcile this with the present doctrine of conception will I believe be found difficult." Smellie replies to him as follows: "What you have writ me, seems to favour the notion of superfectation, more than any thing I have met with in practice. But there are instances of extra-uterine fectuses, which have laid whole years in the abdomen without being putrified."

The same author refers to two other cases of supposed superfectation, which are evidently instances of twins, (and are so regarded by him,) one being retained until full term, and then delivered alive, the other having been expelled months previously. Dr. Samuel Jackson, late of Northumberland, has a case on record, showing the possibility of such an occurrence, and refers to others, witnessed or collected by Dr. Mease. Two of these, having the semblance of superfectation, a sketch of them, as furnished by Dr. Jackson, will be given.

"In the transactions of the Royal Society of London, for 1818, Dr. Grenville refers to a case, related in one of the volumes of the college of physicians of London, entitled a case of "Superfætation." A lady was delivered of a male child in November, 1807, and in three months afterwards, of another male child, 'completely formed.' The first died when nine days old—the second lived longer."

"I have now under my eye," says Dr. Grenville, loco cit., "a recent preparation, where the complete ovum is seen, such as it was, when expelled at the seventh month of pregnancy, the lady being safely delivered of another child, alive, two months afterwards. Although the first fœtus was expelled at the seventh month, it was evidently the growth of a shorter period, and had remained in the uterus, dead, for three months."

If one fœtus may be expelled and the other retained until full term, much

more is it probable that both may remain, even if one be deprived of life, provided the membranes of each be separate and entire. How beautifully does each condition illustrate nature's conformity to established laws, and the care manifested in perpetuating the species. A dead fœtus, which is, in all respects, a foreign body, is enclosed within the uterus. Why is not an action set up for its expulsion? Such would be the case were the membranes hroken, for then the integrity of nature's operations would be infringed upon, and decomposition, and consequent irritation, would produce an action by which it must be expelled. But, the membranes remaining entire, nature proceeds in her work of perfecting the other fætus, and at the end of forty weeks, expels her product, because, as Avicenna said, "such is the law of God." So with the living fœtus, which is retained after the delivery of its fellow twin. Why was it not then expelled, as it would have been at full time, or had it been a mass of coagula? Nature was aware that the accustomed limit of utero-gestation had not arrived; the living feetus had its own waters and membranes, and consequently, created no unnatural stimulus to provoke abortion, and (will it be thought fanciful to assert?) there seemed an internal consciousness that it ought to be retained and nourished.

Another case very much in point, has just presented itself. "Mauriceau mentions his having seen a young woman, who had been delivered at the usual time, of twins, one of which was alive, and of the ordinary size, the other was dead, and seemed to be only of three or four months." Smellie, p. 88.

It is well known, that a late distinguished professor in the University of Pennsylvania, has an article in his "Essays on Midwifery," defending the doctrine of superfectation. His views on the subject of impregnation, occurring, as he supposes, through the agency of a set of vessels, which convey the semen directly from the vagina to the ovaries, will, so far as received, obviate some of the standing objections to its existence. The case which he cites, as occurring in his practice, is very similar to those given above. He, however, asserts, that "the placenta was healthy and entire," and we have no wish to call in question the capacity, or correctness, of so intelligent, respectable, and accurate an observer. But he attempts "to establish, beyond a doubt, that it was a case of superfectation, by the following considerations."

First. "The absence of hæmorrhage during the whole of gestation, which would not have been the case, had the placenta been any time detached, before the period of labour." This conclusion certainly appears rational, but let us apply the reasoning to the cases in hand. Are we to suppose that a morbid mass, with funis attached, which, in one case, is described as resembling a "sarcomatous tumour," and in another as a "hard compact, membranous substance, white, and as firm as the uterus," could have been attached, in manner and form, as a placenta, and have remained

thus up to the full period of utero-gestation? No hæmorrhage, however, occurred to either of these females during gestation.

Secondly. "The ovum had nothing in common with the full grown fætus. On the contrary, each had its own membranes, waters and placenta." But the same author maintains in his "System of Midwifery," in the chapter on Twins, "each (twin) may have its own membranes, waters and placenta."

Thirdly. "The fresh and sound appearance of the ovum." But in the cases occurring to the editor of this Journal, to Dr. Perkins, and to the writer, there were no marks of decomposition; every appearance was healthy and natural, for ova of that age, although there was every reason to believe that life had long been extinct.

Fourthly. "Its having maintained its attachment to the uterus, after the birth of the other child." But the same length of time elapsed in the ease, which suggested this article, the second fœtus not being expelled until fifteen hours after the living child. But had the placenta, in the case which occurred to the respected Professor, resembled the morbid mass so often alluded to, would it not require stronger faith to believe, that it could have been, in manner, attached, except, perhaps, through the medium of the membranes, than to suppose that it might have remained for a few hours, unattached, within the uterus?

How far the explanation, which this ease affords, of an apparent instance of superfectation, may be of service in removing the uncertainty and doubt, with which the doctrine has hitherto been regarded, future and extensive observation can alone decide. From an examination of numerous reputed instances, as reported, the following are the conclusions at which we have arrived.

"There is much reason to believe that superfætation may, and does exist, where the female is subjected to a second impregnation, within a few hours after it has already taken place. This is shown by a few cases on record, where twins were born of different complexions, to correspond each with its paternity."

"If from all the reputed instances of its occurrence, there be excluded, such as are evidently cases of twins, one being retained after the other has been expelled; and also such as resemble the prominent case above, where both twins were delivered simultaneously, although life had been, in one of them, long extinct, it is believed that few, if any, clear and unequivocal examples will remain."